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# BUSINESS REVIEW

**Six Decades of Debt Management**

**No Lift for Capital Spending?**

## BUSINESS REVIEW

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# SIX DECADES OF DEBT MANAGEMENT

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Reviews and interpretations of past . . . actions should be concerned not with allocation of blame or responsibility for past mistakes, but with the guidance that past experience may give to future action.

—E. A. Goldenweiser

Debt management and fiscal operations have significant financial and economic effects. Market pressures created by Treasury financing were recognized long ago. As the disturbing effects came to be recognized, Treasury officials devised new financing techniques to prevent or offset them. Growth of the Federal debt and better understanding of the economic impact of Treasury operations led to debt management being regarded as a major tool of economic stabilization.

This is the first of a series of articles on the evolution of debt management objectives, philosophy, and techniques since 1900. The primary purpose is to show why and how new policies and techniques developed. The information is based entirely on official sources such as Annual Reports of the Secretary of the Treasury and statements of top Treasury officials.

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In 1900, the Federal debt was \$1 billion; today it is nearly \$290 billion. During this period, the United States had to finance its participation in two world wars, each the most expensive in history up to its time. The enlarged volume of debt operations led not only to a refinement of management techniques but also to a broadening of the objectives toward which they were directed.

This article deals mainly with the central banking functions performed by the Treasury in its debt management and other fiscal operations from 1900 to 1913, and with debt management problems of World War I.

## CENTRAL BANKING FUNCTIONS

During the first decade of the present century, Annual Reports of the Secretary of the Treasury devoted considerable attention to periodic financial crises and their causes. Aside from the purely technical problems involved in managing the Government's finances, alleviating these periods of financial strain seemed to be a predominant objective of Treasury policy.

Treasury officials recognized that the currency and banking system, and financial operations of the Government, contributed to periodic disturbances in the money market and business activity. In 1900, the Treasury's Annual Report, in calling attention to the unsatisfactory behavior of the currency, stated "the volume of circulating medium is more responsive to the market price of Government bonds than to the requirements of trade and industry." The Annual Report for 1901 explained how the banking system also contributed to business and financial crises, and emphasized the need for a central bank. The tone and nature of the analysis are illustrated by the following quotation:

There are, however, at least three causes which operate to increase the demand upon banks for these credit facilities, and thus to augment the total of loans, or bank credits. These causes may be thus enumerated: A rise in prices of commodities and securities; an increase in the *volume* of these things; an enlarged activity in the sale and transfer of goods and securities. On the other hand,

there is an influence which limits the ability of the banks to continue indefinitely expansion in their loans. That influence is the cash reserves held or controlled by them. . . . No sooner do the symptoms of financial and business trouble appear, than the banks, under the ruling principle of self-preservation, suspend to the farthest limit possible their operations of loaning and discounting. . . . The daily creations of the necessary medium of exchange, *bank credits*, cease, or become entirely inadequate to commercial requirements. The daily natural liquidation of credits continues, resulting in contraction. . . . We thus perceive that the bracing support which had promoted and sustained business progress—without which, indeed, such progress would have been impossible—is withdrawn at the very moment when support is the most needful.

The Treasury also recognized that its operations frequently contributed to periods of financial stringency and business depression. Under the independent Treasury system established in 1846, Government receipts and disbursements were made in cash—specie and currency. Treasury receipts siphoned money into the vaults of the Treasury and sub-treasuries and reduced the cash reserves of commercial banks. Treasury payments, on the other hand, returned money to circulation and added to bank reserves. A Treasury surplus withdrew funds from circulation, reduced bank reserves, and tended to result in a general stringency in the money market. The designation of qualified banks as depositaries for Treasury funds after 1863 alleviated these effects somewhat but Treasury operations continued to be a significant influence in the money market.

Treasury operations tended to create both

seasonal and longer-term disturbances. Receipts flowed into the vaults of the Treasury in a fairly steady stream, whereas disbursements—such as interest, amortization on the debt, and salary payments—were made periodically. In periods when the Treasury was accumulating cash to meet its payments there was a seasonal drain on bank reserves and the amount of money in circulation. A small reduction in bank reserves was sometimes sufficient to create a scarcity of bank credit, especially in the fall of the year when more money was required to market crops. The problem of a surplus was even more serious when it extended over a period of years.

The Treasury frequently used its powers to prevent financial crises and to alleviate them once they developed. These activities of the Treasury were especially pronounced during the period 1902–1907 when L. M. Shaw was Secretary of the Treasury. He felt strongly that steps should be taken to prevent financial panics. His attitude was clearly expressed in 1906 as follows:

The Government quarantines against yellow fever; it spends millions to protect the people against unwholesome food; it inspects banks in the interest of depositors, and does a thousand other things to safeguard the people against disaster of various kinds. This policy of governmental supervision receives universal approbation. Believing it to be the duty of the Government also to protect the people against financial panics, which, in this country, have caused more mental and more physical suffering than all the plagues known to man, and recognizing that under our system no possible cooperation can be secured among banks, each independent of the other, and

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# NO LIFT FOR CAPITAL SPENDING?

Spring brings seasonal recovery in business as well as buds and blossoms. Forecasters are especially fascinated by this year's seasonal bounce; they hope it means the beginning of a vigorous recovery from the recession of 1960-1961. But hope will be frustrated if business spending does not develop sustained drive. That requires a solid surge of investment in business facilities, to generate really strong growth after the initial upturn in the business cycle runs its course.

Manufacturers included in our surveys of the Delaware and Lehigh Valleys do not as yet indicate such a lift in capital spending for 1961. Every spring we ask about the capital spending plans reported the preceding fall. This year we looked for upward revisions. We find instead that manufacturers in the Philadelphia area still plan to cut back capital expenditures in 1961 by 20 per cent, compared with 1960—about what they predicted last fall. True, there has been shifting around; some industries have added to capital spending plans while others have cut back. But the net result stands still—only \$329 million compared with \$412 million in 1960.

The findings yield one ray of hope. More industries revised estimates upward than downward. The dollar figures were held down by cutbacks in the metal industries, which are important in this region and therefore greatly affect the totals. Actually, were it not for the durable goods group, the survey would convey a more optimistic message. Manufacturers of nondurable goods in the Philadelphia area have increased their estimated 1961 spending 15 per cent since last fall.

## Neighboring areas

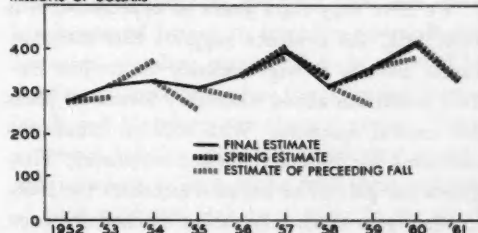
The Trenton, Wilmington, and Lehigh Valley areas turned in a somewhat more encouraging report last fall than did Philadelphia, and so also this spring. The manufacturers in these regions expect to spend nearly as much for capital additions and improvements in 1961 as in 1960—\$123 million compared to \$128 million last year. They now plan to spend about 10 per cent more in 1961 than they indicated last fall.

## The best laid plans . . .

How much are capital spending plans revised? Do manufacturing firms anticipate events rather well? If so, their advance plans for plant and equipment expenditures should be closely related to their final decisions and therefore should convey useful information about final results.

The graph shows that, as you might expect, the realization of capital spending plans depends heavily on business conditions. There is a tendency for the dotted lines, which represent how capital expenditures would have progressed had advance plans been fulfilled, to fly off at the turns of the bold line representing final capital expenditures. This simply reflects the fact that

**CAPITAL SPENDING PLANS OF  
PHILADELPHIA MANUFACTURERS, 1952-1961**  
MILLIONS OF DOLLARS



advance plans are heavily colored by current conditions. Closer inspection of the chart reveals that in three years of rising business activity—1955, 1956, 1959—only once did firms plan to drop expenditures the following year and that was in 1955, a year in which capital expenditures had actually declined. In two years of recession—1954 and 1958—companies planned heavy cutbacks the following year. So, for the years of clear-cut prosperity or recession, we have four instances when spending plans for the following year reflected current conditions, and only one exception.

When we include the three peak years—1953, 1957, 1960—when the direction of business changed from good to bad, we find that in all of those years capital spending increased over the previous year and also over the year-ahead estimate of the preceding fall. But only once, in 1953, did these facts lead to an optimistic estimate for the next year. In 1957 and 1960, the mounting recession in the second half of the year apparently had the greater effect on plans.

Putting these findings together produces the following table.

Business Conditions During Year	Capital Spending Estimate for Succeeding Year	
	Matches Current Conditions	Does Not Match
Clearly prosperous or clearly depressed	4	1
Unclear—year when recession began	2	1

We have only eight years of experience, it is true. Still, the evidence suggests that manufacturers have a strong tendency to project current conditions ahead when they formulate plans for capital spending. With this in mind, the estimates for 1961 are not too surprising. They follow the pattern of advance estimates for 1958, another year when a recession reached its worst

Capital Expenditures Comparison	Change in Philadelphia Manufacturers' Capital Expenditures	
	1958	1961
First (fall) estimate to preceding year's final total	-13.4%	-19.8%
Second (spring) estimate to preceding year's final total	-15.3	-20.1
Final total to preceding year's final total	-19.7	??

point in the spring of the year.

There is one difference between 1958 and this year. In 1958 awareness of a turnaround in the economy came late, and was not reflected in capital spending plans here until the beginning of the next year. In 1961, however, a consensus of opinion already has emerged that a business upturn has arrived. This could have the effect of accelerating revisions of capital spending plans. It would not be astonishing to find them higher before the end of the year. Perhaps a straw in the wind is provided by manufacturers' expectations concerning production.

### Production is expected to improve . . .

Firms in our Philadelphia survey were asked to forecast their production and inventories to the end of 1961. They are very optimistic about production, as the accompanying table shows. When making these forecasts, very often the majority

#### PRODUCTION AND INVENTORY EXPECTATIONS OF PHILADELPHIA MANUFACTURERS

1961 Production by Quarters Compared with Previous Quarter	Direction of Change (Per cent of Firms)		
	Up	Down	No Change
First	28	31	41
Second	41	12	47
Third	43	15	42
Fourth	39	16	45
Inventories—1961 vs. 1960	15	16	69



# ESTIMATED CAPITAL EXPENDITURES OF MANUFACTURERS IN THE DELAWARE AND LEHIGH VALLEYS 1960 AND 1961

	1961 Estimate as of				Change in 1961 Estimate Fall-Spring
	Expenditures 1960	Fall 1960	Spring 1961	Change 1960-1961	
	(Dollar amounts in millions)				
Philadelphia Metropolitan Area					
All Manufacturing	\$411.9	\$330.3	\$329.3	-20.1%	- 0.3%
Durables	191.1	170.3	145.7	-23.8	-14.4
Lumber and furniture	2.7	1.7	3.2	+18.5	+88.2
Stone, clay and glass	8.1	6.9	5.9	-27.2	-14.5
Primary metals	81.3	84.1	56.4	-30.6	-32.9
Fabricated metals	19.8	16.7	13.2	-33.3	-21.0
Machinery (excl. elec.)	25.4	17.8	17.6	-30.7	- 1.1
Electrical machinery	37.4	28.0	31.4	-16.0	+12.1
Transportation equipment	10.4	7.9	10.2	- 1.9	+29.1
Instruments and misc.	6.0	7.2	7.8	+30.0	+ 8.3
Nondurables	220.8	160.0	183.6	-16.8	+14.8
Food and tobacco	36.4	21.9	32.1	-11.8	+46.6
Textiles	10.6	4.6	5.6	-47.2	+21.7
Apparel	3.2	2.2	3.0	- 6.3	+36.4
Paper	25.8	14.4	16.7	-35.3	+16.0
Printing and publishing	15.4	18.7	18.1	+17.5	- 3.2
Chemicals	76.2	46.9	46.4	-39.1	- 1.1
Petroleum	36.7	38.6	49.8	+35.7	+29.0
Rubber and leather	16.5	12.7	11.9	-27.9	- 6.3
Trenton					
All Manufacturing	27.6	20.5	25.7	- 6.9	+25.4
Wilmington					
All Manufacturing	51.7	46.8	52.4	+ 1.4	+12.0
Lehigh Valley					
All Manufacturing	49.1	44.4	44.4	- 9.6	0

refuses to commit itself, taking refuge in the box marked "No change." This time, however, there is a definite preponderance of optimism starting with the second quarter of this year.

## But caution rules concerning inventories

It has always been difficult to find manufacturers who will commit themselves regarding inventory changes. This year is no exception. Perhaps the reasoning goes that improved business will draw down finished goods inventories, even though supplies of materials will increase to support the production increases which are projected. At any rate, as the table shows, there is almost a perfect balance of opinion, with the overwhelm-

ing majority anticipating no change in total inventories.

## Summing up

The results of our checkup on the estimates for 1961 made by manufacturing firms last fall promise no lift from capital expenditures to sustain total business spending this year. This has happened before in recession years. Manufacturers' spending plans tend to be affected by conditions prevailing when the plans are formulated, and therefore can change quickly. Firms expressed relative optimism concerning production increases in each of the final three quarters of 1961, and this may be a straw in the wind.

## DEBT MANAGEMENT

*(Continued from Page 4)*

finding these institutions in the interior sending their money to be loaned on call in the cities, and the reserve of the country, even in the idle season, very low, the Secretary of the Treasury undertook the task of making some slight provision for the inevitable. He withdrew from the channels of trade \$60 million and locked it up. This was accumulated in part by excessive revenues and in part by deliberate and premeditated withdrawals. His only excuse for withdrawing the people's money when they did not need it, and when its presence invited speculation, was to have it ready to restore when they did need it, and when its absence would bring certain disaster.

Helping to maintain business and financial stability was often an objective of Treasury policy during that period. In periods of monetary ease, the Treasury frequently accumulated a reserve in its own vaults from receipts and sometimes by withdrawing its deposits from the banks. In periods of stringency, the Treasury took steps to increase bank reserves and add to the supply of funds in the money market. Such efforts were sporadic and inadequate, however, both because of the limited powers available and willingness of different Secretaries to use them.

Several devices were employed to relieve financial stringency when bank reserves were low and credit was tight. One of the most important was to increase Government deposits in the banks, thus adding to their reserves and increasing their ability to make loans and investments. Prior to 1903, the Treasury believed that it had authority to build up deposits in banks only from current receipts. Inasmuch as its surplus was usually small, the amount of assistance

that could be provided was limited. In 1903, the Secretary inaugurated a policy of building up Government deposits in the banks, when deemed desirable, not only from current receipts but also by transferring funds from the vaults of the Treasury.

The strain on banks in periods of stringency was also relieved by suspending reserve requirements against Government deposits. The Secretary of the Treasury took such action in 1902, for example. Release of the cash reserves back of \$130 million of Government deposits had the same effect as a reduction in reserve requirements. Legislation in May 1908, eliminated the requirement that banks hold reserves against deposits of public money.

Another method of relieving stringency was prepayment of interest and principal on Government bonds. As bond holders deposited those funds, additional deposits were placed at the disposal of commercial banks. Purchases of Government bonds by the Treasury, sometimes made at substantial premiums, had a similar effect.

The Treasury also attempted to make national bank notes more elastic. When there was a shortage of currency, the Secretary accepted certain securities other than Government bonds as collateral against Treasury deposits, provided the Government securities so released were used as the basis for an increase in national bank notes. In periods of monetary ease, the Secretary would permit Government bonds to be substituted for other securities held as collateral, thus bringing about a reduction in national bank notes in circulation. By releasing Governments held as security for Treasury deposits in periods of stringency and requiring them as collateral in periods of ease, the Secretary attempted to make national bank notes expand and contract



more in accordance with the needs of business.

These activities of the Treasury aroused some criticism. It was alleged that they interfered with normal corrective forces—for example, that high interest rates in periods of stringency were needed to reduce excessive bank credit. For the Treasury to supply additional funds and keep interest rates lower than they would be otherwise merely postponed the corrective readjustment which was needed. Some objected also to an abundance or shortage of funds being created by withdrawing or pouring Government funds into the money market at the discretion of the Treasury. Another alleged disadvantage was a tendency on the part of some banks and others to rely on the Treasury for help.

In 1913, the Federal Reserve System was established and the Reserve Banks began operation in 1914. The Federal Reserve fell heir to the central banking functions which had been performed informally by the Treasury. Many of the fiscal operations of the Government, previously handled by the Treasury, were transferred to the Federal Reserve Banks.

### FINANCING WORLD WAR I

The total Federal debt outstanding in mid-1916 was \$1.2 billion, and the annual interest charge was about \$23 million. At the postwar peak in August 1919, the debt was nearly \$27 billion and the annual interest charge exceeded \$1 billion.

World War I generated what up to that time was indeed an unprecedented volume of expenditures. Expenditures of the Federal Government rose from \$734 million in fiscal year 1916 to a peak of \$18 billion in fiscal 1919. From April 1917 to October 1919, Federal expenditures, including loans to foreign governments, totaled \$35 billion. This was just about ten times the

cost of the Civil War, expenditures for the period 1861–1865 amounting to over \$3 billion.

Of the total of \$35 billion expended in the war and early postwar period, \$11 billion or about 32 per cent was raised by taxation and the remainder by borrowing. This was similar to the Civil War experience when about 30 per cent of expenditures was raised by taxation and about 70 per cent by borrowing.

The economic effects of different methods of financing the war apparently were not a dominant consideration in developing the war-financing program. There was much less emphasis on obtaining as large a portion of the funds as possible from current income than during World War II. Debt management was concerned mainly with such problems as reducing the impact of Treasury operations on the money market, interest rates, and supporting the price of Government securities. Inflation, although recognized, was not a major factor in fashioning the Government's financial policies.

### The borrowing program

The borrowing program included three major types of securities: (1) short-term certificates of indebtedness, (2) long-term bonds, and (3) war savings securities.\*

Certificates of indebtedness were used primarily to reduce the impact of Treasury operations on the money market. Most of these certificates matured within one to three months and were issued in anticipation of taxes and receipts from the war loan drives. The total amount issued in advance of the four Liberty Bond drives was

\*Prior to World War I, issues of Government securities, and usually the terms and conditions of a particular issue, were authorized by Acts of Congress. The large volume of borrowing required in financing the war led Congress gradually to delegate authority over terms and conditions to the Secretary of the Treasury. Enabling legislation usually established the maximum rate and amount. The present 4¼ per cent ceiling on bonds, of any maturity, was established in 1918.

about \$11 billion.

The Treasury relied primarily on long-term bonds in its borrowing program. There were four Liberty Bond issues and one Victory note issue. The first Liberty Bond issue was authorized by the Act of April 1917. Date of issue, interest rate, maturity, and amount of each issue sold during the five drives were as follows:

	Date of issue	Interest rate	Maturity	Amount subscribed	Amount issued
				(in billion \$)	
First Liberty Loan*	6/15/17	3½%	30 years	\$3.0	\$2.0
Second Liberty Loan	11/15/17	4	25 "	4.6	3.0
Third Liberty Loan	5/9/18	4¼	10 "	4.2	3.0
Fourth Liberty Loan	10/24/18	4½	20 "	7.0	6.0
Victory Loan**	5/20/19	4¾ & 3¾	4 "	5.3	4.5

\* This issue was exempt from all taxes, except estate taxes.

\*\* Issued in two series—4¼ and 3¾ per cent—the former exempt from all Federal, state, and local taxes, except estate, inheritance, Federal surtaxes, excess profits, and war profits taxes. The latter was exempt from all taxes except estate and inheritance taxes.

Treasury savings certificates and savings stamps were also issued by the Treasury in World War I. Treasury savings certificates were issued in \$100 and \$1,000 denominations; war savings stamps were for \$5; and the thrift stamps were 25 cents. The savings certificates and the \$5 war savings stamps were sold at a discount, matured in five years, and were worth face value at maturity. The thrift stamps were designed to encourage saving even in small amounts and were used to evidence payments on war savings stamps and certificates.

The Treasury put on intensive, nationwide selling campaigns during the drives to promote sales of securities. Each Reserve Bank supervised the sales program in its district, and committees consisting of businessmen, bankers, and other local citizens were organized in each community. In an effort to meet the goals for the drives, quotas were set for districts, states, communities, and sometimes for individuals. Furthermore,

people were encouraged to borrow if necessary to meet their quotas, using the bonds purchased as collateral for loans. The sales program was based primarily on an appeal to patriotism and the need for thrift.

The Treasury emphasized the need for saving to release goods and resources for war purposes. Preventing inflation was not stressed, although

saving was an anti-inflationary source of financing. The values to be derived from savings were stated as follows:

'Business as usual' cannot, of course, be adopted as the guiding principle in time of war. . . . The great financial operations of the Government cannot be carried forward successfully unless the people of the United States economize in every possible direction, save their money and lend it to the Government. By saving money they give up some of their needless pleasures; they reduce their demand upon the general supply of food, clothing, and other materials in the country, releasing thereby that much more for the use of our own armies and the armies and civilian population of the nations which are fighting the common danger with us.

Liberty Bonds were designed to tap the large savings of institutions and of middle- and

higher-income groups. Savings certificates were directed toward those of less means, and to promote sales a Savings Division was established in the Treasury. Sales of savings certificates and stamps from December 1917 to December 1919 exceeded \$1 billion at the issue price. The Treasury considered the savings program successful both in terms of revenue and in encouraging thrift. The Annual Report for 1918 stated, "this war-time experiment has been so successful that it is hoped that war savings certificates will become a continuing feature of the nation's financing, even after restoration of peace."

#### **Minimizing impact on money market**

A tremendous increase in volume of Treasury operations during the war emphasized the need to prevent disturbing effects on the money market. One disturbing influence arose from the fact that the Treasury's ordinary receipts and disbursements were not well synchronized. Receipts, derived largely from income, excess profit and excise taxes, were concentrated at tax-payment dates. Regular disbursements were distributed more evenly throughout the year. At major tax-payment dates, Treasury receipts usually siphoned off substantially more funds than expenditures returned to the money market, thus creating a shortage of bank reserves and tight credit conditions.

During war loan drives, sales of Treasury securities siphoned off a much larger volume of funds than Treasury expenditures returned. The tendency was to create a shortage of funds in the money market. In periods when expenditures exceeded receipts, Treasury operations added to bank reserves and increased the supply of funds in the market. A major problem confronting the Treasury, therefore, was better to synchronize receipts and disbursements to eliminate money

market stringency during periods of excess receipts, and money market ease in periods of excess expenditures.

The Secretary of the Treasury relied mainly on three devices to minimize disturbing effects of Treasury operations on the money market. They were: installment payments for Liberty Bonds, a system of special depository banks, and the issue of certificates of indebtedness in anticipation of tax payments and receipts from sales of securities.

A plan of permitting subscribers to pay for their bonds in installments was introduced in the First Liberty Loan drive in June 1917. Subscribers were permitted to pay for their bonds in five installments: 2 per cent with the subscription; 18 per cent on June 28; 20 per cent, July 30; 30 per cent, August 15; and 30 per cent, August 30. Spreading receipts over a longer period would "facilitate the necessary transfers of credit with the least possible disturbance to the money market." The plan was also a convenient method of payment for subscribers and was helpful in promoting sales. In the Revenue Act of 1919, permission was granted for quarterly payment of income taxes.

After establishment of the Federal Reserve System, fiscal agency functions of the Government were largely handled by the Reserve Banks. A large percentage of current revenues was deposited directly in the Reserve Banks and the bulk of Treasury disbursements was made by check drawn on the Reserve Banks. Treasury receipts reduced private deposits in commercial banks and member bank reserves held with the Reserve Banks. An excess of receipts over expenditures created a substantial drain on the money market.

To prevent payment for Government securities from producing serious disturbance in the

money market, a special depository system was introduced in 1917. Banks could qualify as special depositories by putting up certain designated securities, and depository banks were permitted to pay for bond subscriptions by crediting the Treasury's account.

The special depository system was one of the most important developments in alleviating the impact of Treasury operations on the money market. To the extent that securities issued by the Treasury were purchased by banks, Treasury deposits and total deposits were increased, there being no corresponding decrease in private deposits. Securities purchased by non-bank owners merely shifted deposits from private to Treasury account, with no change in the total.

The rise in bank deposits accompanying war loan drives increased the amount of reserves needed to support the larger volume of deposits. To eliminate this sudden drain on reserves, the First Liberty Loan Act exempted Government deposits from reserve requirements. Member bank reserves were drawn down when the Treasury transferred war loan deposits to the Reserve Banks as needed to meet its expenditures. Reserves were soon restored, however, as Treasury checks drawn on the Reserve Banks in meeting expenditures were deposited in the commercial banks and returned to the Reserve Banks for collection. The net effects were a shift from Treasury deposits to private deposits and an increase in required reserves. The impact on reserves was much more gradual, however, than when banks were required to hold reserves against Government deposits, which rose tremendously during war loan drives.

Under Secretary of the Treasury Mills explained the purpose of the new procedure as follows: "The point to remember is that the balance carried by the Treasury with the Federal

Reserve Banks is equivalent to the withdrawal of a certain amount of funds from circulation. It is for this reason that the Treasury maintains two bank accounts—the deposit account with the regular banks, which it draws on from time to time as the funds are needed, and the checking balance with the Federal Reserve Banks, which is restricted to the normal day-to-day requirements of the Government." He went on to explain that since money transferred to the Federal Reserve Banks is paid out immediately, the transaction "occasions no withdrawal of funds from the market."

A third method of easing the impact on the money market was the issue of certificates of indebtedness in anticipation of receipts from taxes and securities flotations. The Secretary of the Treasury was granted authority in March 1917 to issue certificates of indebtedness with a maturity of not more than one year and at an interest rate not to exceed  $3\frac{1}{2}$  per cent. The Secretary issued \$50 million of certificates in March 1917 in anticipation of June tax payments to get additional revenue and to smooth out the impact of tax collections on the money market. Certificate maturities were scheduled for tax-payment dates, with the result that tax receipts were used largely to pay off maturing Government obligations, and thus flowed back promptly into business channels.

Certificates of indebtedness were also used to anticipate the large inflow of funds during war loan drives. Certificates of indebtedness aggregating \$17 billion were issued in anticipation of Liberty Bonds, totaling \$21 billion. A Treasury official stated that the plan "has proved wise and beneficial, and has prevented disturbance in the money market which might have resulted if the operation had not been eased over a long period in this manner."

### Interest rate policy

One of the objectives of the borrowing program was to keep the interest cost as low as possible. The Secretary of the Treasury stated: "My decision to adhere to low rates on bond issues saved an immense sum to the people of the United States. I could not reconcile myself to the idea of loading them with a huge and unnecessary burden, although I knew that it would make my task easier in selling the bonds." Despite the low interest rate policy, each Liberty Bond issue was oversubscribed. The low return was largely offset by intensive selling campaigns based, primarily, on an appeal to patriotism.

The Treasury was reluctant to raise the rate on successive issues. In 1917, for example, the Secretary stated: "In my judgment an increase in the rate of interest on such bonds would be extremely unwise and hurtful. The higher the rate on Government bonds, the greater the cost to the American people of carrying on the war and the greater will be the depreciation on all other forms of investment securities. We cannot regard without concern serious declines in the general value of fixed investment. It should be the earnest endeavor of everyone to prevent this."

The Federal Reserve System assisted the Treasury in its program of financing the war. Discount rate policy was guided primarily by the necessity of supporting Treasury financing until after the completion of the Victory Loan in the spring of 1919. To meet the strain on member bank reserves from deposit growth and an increase in currency in circulation, discount rates were kept low and preferential rates were granted on advances secured by Government obligations. Federal Reserve Bank discounts rose during the period and by November 1919, about 80 per cent of the total was secured by Government paper.

### Supporting price of Government bonds

The price of Liberty Bonds declined gradually during the war period and then dropped sharply in the fall of 1919 and early 1920. The decline during the war resulted in part from the rise in interest rates. It also reflected a rise in taxes which reduced the net yield, and selling by people who over-bought in response to sales pressure exerted during the war loan drives. The decline in Government securities prices aroused a number of proposals, the major ones being that some form of support be given to the Government securities market.

Several reasons were advanced in favor of some type of support. Considerable emphasis was placed on wide distribution of the bonds and a need for protecting small investors. The Secretary of the Treasury stated in 1918, "bonds of the third Liberty loan received the widest possible distribution, and I feel we all owe a duty to the millions of subscribers of small means, not merely to pay them a fair rate of interest, which we are doing, but to take such measures as may be necessary to insure to them a market for the bonds at approximately par in case their necessities are such as to force them to realize upon the investment which they have made in the Government's obligations." Other points advanced by the Secretary were that, "there will not be such a desire to sell the bonds, because the very fact that they can sell them will make people feel more confident about holding them"; and that a fund to support the price, such as a sinking fund, would be "much cheaper for the Government than to increase the interest rate."

The Secretary of the Treasury was opposed, however, to pegging the price of Government bonds or to a policy of purchasing them at par. In February 1918, he stated before the House



**Committee on Ways and Means:**

Any attempt to peg the price of Liberty bonds at par would be unwise and subject to legitimate criticism as turning the Government's long-term 20- or 25- or 30-year bonds into demand obligations. . . . The purpose of borrowing on time by the Government is exactly the same purpose which animates the manufacturer or merchant to borrow for a definite period in reference to his needs, with a view to paying back the obligation at maturity, and the man who lends the money has no right to expect a borrower to pay it back in advance upon his demand at any time. . . . If the Government attempted to pay these loans on demand, it might be bankrupted. Then, again, I think that if you undertook to peg the market at par you would encourage people to turn their bonds back to the Government when they get a little tired of holding them. . . . Practically to attempt to maintain Government bonds at par involves the idea of issuing interest-bearing currency. . . . It is highly desirable that violent and unnecessary fluctuations in price should be avoided and that all possible measures should be taken to stabilize the price of Liberty bonds.

The Secretary requested and was given authority in April 1918 to purchase outstanding bonds "at such prices and upon such terms and conditions as he might prescribe." Purchases in any one year were limited to 5 per cent of the par amount of bonds outstanding, and the average cost of any series purchased was not to exceed par and accrued interest. Purchases under this program, which totaled \$1.7 billion at par value, were discontinued July 1, 1920. As to the operation of the program, the Treasury stated in 1919: "During all this period without

endeavoring to hold the bonds to levels that could not be maintained, it was the constant endeavor of the Treasury to maintain the stability of the market for Government securities."

Discussion with respect to the necessity of taking Government action to improve the price of Liberty Bonds included several proposals other than market-support purchases. Other proposals were tax exemption, refunding into higher-interest bonds, giving Liberty Bonds the circulation privilege, and making loans on Liberty Bonds at low rates of interest.

The Secretary made a rather novel proposal in February 1919, requesting Congress for authority to issue bonds or notes payable at a premium at maturity. He stated that payment of a slight premium at maturity would have several advantages over an increase in interest rate. Among the advantages given were that it would be "an inducement to saving and to retention of the bond"; "tend to limit depreciation in the market"; and "would probably have a somewhat less injurious effect upon the market value of existing issues of Liberty Bonds and other securities than a flat increase in the interest rate."

**Inflation**

Official statements do not indicate that preventing inflation was a major objective in fashioning the borrowing program. A view widely held was that quality and not quantity of bank credit was the key to control of inflation. Bank loans and investments were not considered inflationary so long as they originated in financing production and an orderly flow of goods to the consumer. According to this view, volume of currency and credit moved in response to changes in volume of production and trade—rising as business activity increased and declining as it decreased.



According to the Secretary of the Treasury, the primary cause of rising prices was the "war demand for commodities." He absolved currency and credit expansion of any responsibility for the inflation, as the following statements selected from the Annual Report for 1919 indicate: "There is no escape from the conclusion that under our system, currency can be issued only in response to a demand therefor as circulating medium and that such currency is automatically retired when it is no longer required as circulating medium. Currency expansion, therefore, is an effect and not a cause of advancing prices. . . . Credit expansion must be carefully distinguished from currency expansion. The primary cause of high prices was the demand for commodities by the European belligerents before our entry into the war, and by the United States and the European belligerents combined after our entry into the war. So far as the United States Government was concerned, payment by the Government for war commodities rendered inevitable a certain measure of credit expansion, as it was impossible to bring about at once a restriction of private consumption by our people commensurate with the growing needs of the Government. This credit expansion, therefore, was the effect of the war demand for commodities by the United States Government and a necessary concomitant of that demand." A point overlooked was that a more rapid rate of expansion in currency and credit than in the available supply of goods pushes prices up, and by increasing the dollar volume of business creates a demand for more credit.

The process of inflation in World War I, even though mainly in the form of an increase in bank credit to private borrowers, was closely related to the Treasury's borrowing program. The volume of Treasury borrowing far exceeded

actual savings. Many purchased Liberty Bonds by borrowing from their banks, depositing the bonds as collateral for the loan. As deposits increased, banks obtained additional reserves by discounting customers' paper, secured by Government obligations, at the Federal Reserve Banks at preferential rates.

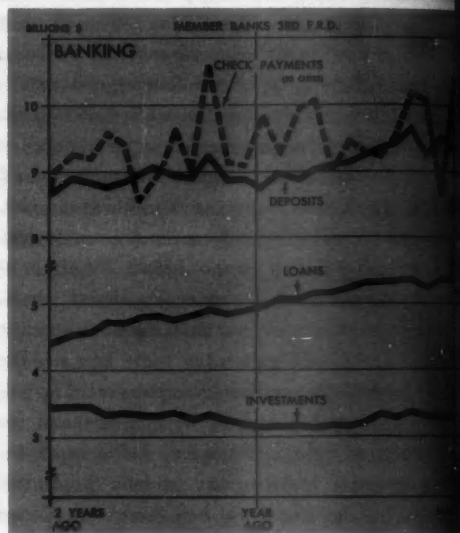
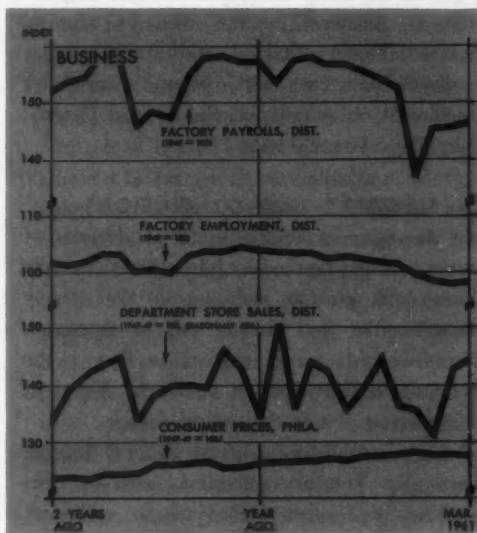
### SUMMARY AND CONCLUSIONS

Debt management in the first two decades of this century was marked by intermittent attempts to maintain greater stability in the money market in the first decade and an intensive, nationwide borrowing program to finance the Government's participation in World War I at a low interest cost in the second decade.

Prior to establishment of the Federal Reserve System, the Treasury sometimes used its debt operations and other techniques to anticipate and to alleviate periods of financial stringency. These efforts, however, were sporadic and inadequate. They did not result in a continuous and coordinated program of stabilization because of limited funds and powers available to the Treasury and willingness of different Secretaries to pursue such policies.

The borrowing program in World War I was fashioned, in large part, by technical considerations such as keeping interest cost of the debt low and reducing the impact of bulges in Treasury receipts on the money market by arranging certificate maturities at tax-payment and war loan drive dates. The inflationary impact of Treasury borrowing received considerably less explicit recognition in World War I than in World War II; however, emphasis on saving to release productive resources for war purposes was anti-inflationary in effect even though preventing inflation was not often expressly stated as an objective.

# FOR THE RECORD...



SUMMARY	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	Mar. 1961 from			Mar. 1961 from		
	mo. ago			mo. ago		
	year ago	3 mos. from year ago	year ago	year ago	3 mos. from year ago	year ago
<b>MANUFACTURING</b>						
Production .....	.....	.....	.....	.....	.....	.....
Electric power consumed .....	.....	.....	.....	.....	.....	.....
Man-hours, Total* .....	+ 6	- 5	- 7	+ 1	- 7	- 8
Employment, Total .....	0	- 8	- 9	0	- 6	- 6
Wage income* .....	+ 1	- 7	- 7	.....	.....	.....
<b>CONSTRUCTION**</b>						
.....	+54	+10	+10	+42	+4	+6
<b>COAL PRODUCTION</b>						
.....	-15	-28	-20	-11	-22	-16
<b>TRADE***</b>						
Department store sales .....	+ 1	+ 8	+ 2	0	+ 5	+ 3
Department store stocks .....	+ 1	0	.....	+ 1	+ 1	.....
<b>BANKING</b>						
(All member banks)	.....	.....	.....	.....	.....	.....
Deposits .....	- 2	+ 6	+ 6	- 2	+ 6	+ 6
Loans .....	0	+ 8	+ 9	0	+ 5	+ 4
Investments .....	- 1	+ 4	+ 3	- 2	+ 11	+ 10
U.S. Govt. securities .....	- 2	+ 5	+ 4	- 3	+ 13	+ 11
Other .....	0	+ 1	+ 1	+ 2	+ 9	+ 6
Check payments .....	+20†	+ 6†	+ 4†	+15	+ 4	+ 4
<b>PRICES</b>						
Wholesale .....	.....	.....	.....	0	0	0
Consumer .....	0†	+ 1†	+ 2†	0	+ 1	+ 2
<b>LOCAL CHANGES</b>						
	Factory*		Department Store†		Check Payments	
	Employment	Payrolls	Sales	Stocks	Per cent change Mar. 1961 from	
	Per cent change Mar. 1961 from	Per cent change Mar. 1961 from	Per cent change Mar. 1961 from	Per cent change Mar. 1961 from	mo. ago	year ago
	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago
Lehigh Valley	0 - 3	0 - 4	.....	.....	.....	+26 + 1
Harrisburg ...	+ 2 - 9	+ 1 - 10	.....	.....	.....	+18 - 1
Lancaster ....	0 - 5	+ 1 - 3	+ 6	+10 +10	+ 2	+19 + 1
Philadelphia ..	0 - 5	+ 1 - 3	0	+ 8	+ 2	+10 + 3
Reading .....	- 1 - 8	+ 2 - 9	+ 6	+ 8	+ 9	- 1
Scranton .....	0 - 4	- 1 - 4	+13	+ 3	- 2	- 6
Trenton .....	0 - 11	+ 2 - 11	- 7	- 2	+ 2	+10
Wilkes-Barre ..	+ 2 - 5	+ 3 - 7	+ 7	+ 9	- 2	- 8
Wilmington ..	- 1 - 8	0 - 7	+ 6	+10	+ 5	+ 3
York .....	0 - 2	- 3 - 4	+ 1	+10	+ 2	+ 1

\*Production workers only.

\*\*Value of contracts.

\*\*\*Adjusted for seasonal variation.

†20 Cities

‡Philadelphia

\*Not restricted to corporate limits of cities but covers areas of one or more counties.

†Adjusted for seasonal variation.

Check  
payments

er cent  
change  
er. 1951  
from

o. year  
ago

26 + 9

18 - 2

19 + 1

10 + 3

17 + 45

17 - 1

11 + 0

24 + 6

56 + 30

19 + 6

of one